FIGURE 1A

FIGURE 1C

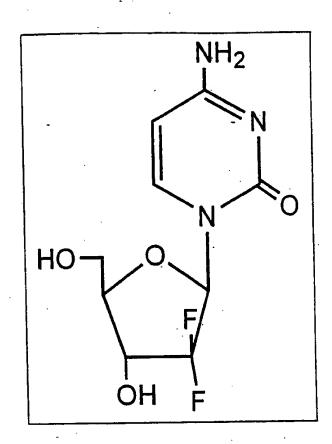
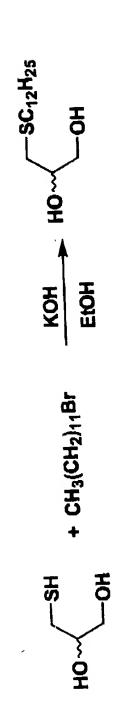


FIGURE 1B

FIGURE 1D

### Synthesis of Lipid Backbone





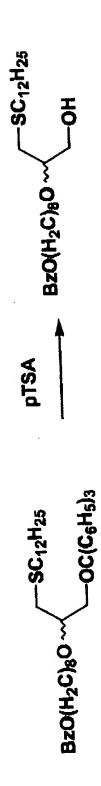


FIGURE 2

## Synthesis of AZT-Malonic Acid (AZT-MA)

Substituted malonic acid chlorides (CICOCHRCOCI) could also be used in the above reaction;  $R = CH_3$ ,  $CH_2CH_3$ ,  $C_6H_5$ 

FIGURE

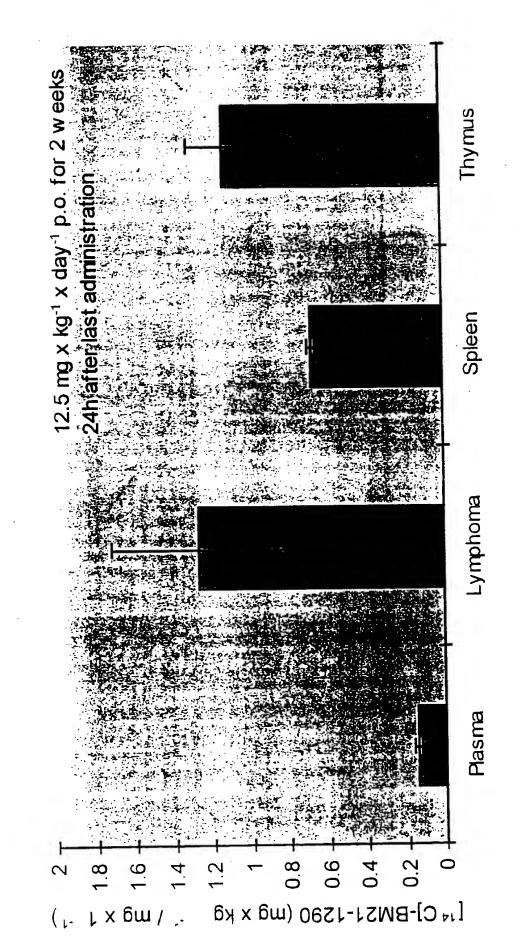
# Synthesis of AZT-Phosphocholine Conjugate

-SC<sub>12</sub>H<sub>25</sub>  $BzO(H_2C)_8O \sim$ 1. Cl2PO2CH2CH2Br 2. (CH<sub>3</sub>)<sub>3</sub>N -SC<sub>12</sub>H<sub>25</sub>  $BzO(H_2C)_8O \sim$ 

DCC/DMAP AZT-MA -SC<sub>12</sub>H<sub>25</sub> HO(H<sub>2</sub>C)<sub>8</sub>O ~~ H<sub>2</sub>, Pd/C

FIGURE 4

[14C]-BM 21.1290 concentrations in plasma and lymphoid tissues of female C57BI/6 mice



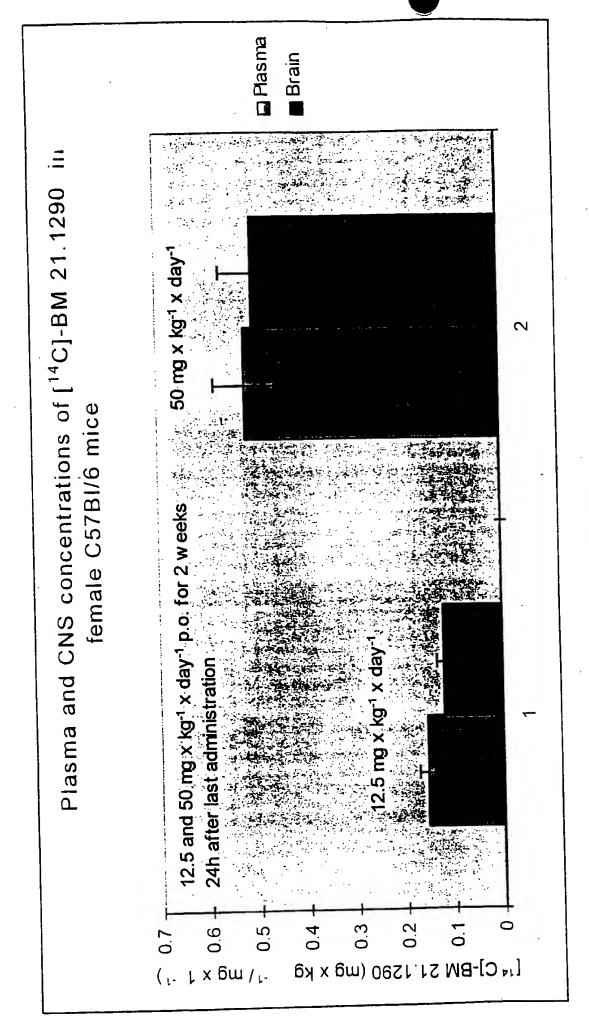


FIGURE 6

### lipid & ara-C coupled through phosphate ester

FIGURE 7A

### lipid & gemcitabine coupled through phosphate ester

### lipid & ara-C coupled through phosphonate ester

FIGURE 8A

### lipid & gemcitabine coupled through phosphonate ester

### lipid coupled to methotrexate through an ester